

Attorney Docket No.: 1199-1015

PATENT

Cont'd
(1)

a reaction chamber is placed in the path of light redirected by said micromirror, wherein light that is redirected by said micromirror catalyzes a chemical reaction proximate said substrate in said reaction chamber.

²
~~8.~~ The apparatus of claim 1 wherein said light interacts with a novolak resin proximate said substrate to produce a photoresist pattern.

³
~~13.~~ The apparatus of claim 1 further comprising:

a reaction chamber disposed about said substrate;

one or more reactant lines connected to said reaction chamber;

one or more reaction chemicals connected to said reactant lines; and

a computer connected to, and controlling, the supply of said one or more reaction chemicals to said reaction chamber via said reactant lines.

⁴
~~14.~~ The apparatus of claim ³~~13~~ wherein said one or more of said reaction chemicals is involved in a chemical reaction when exposed to light.

⁵
~~15.~~ An apparatus for catalyzing a reaction on a substrate comprising:

a light source;

a micromirror positioned to redirect light from said light source toward said substrate;

D a diffusion lens between said light source and said micromirror;
a reaction chamber disposed about said substrate;

one or more reactant lines connected to said reaction chamber;

one or more reaction chemicals connected to said reactant lines; and

a computer connected to, and controlling, said micromirror and the supply of said one or more reaction chemicals to said reaction chamber via said reactant lines, wherein

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a light catalyzable reaction occurs proximate to the site where light produced by said light source and redirected by said micromirror strikes said substrate.

⁶
~~16.~~ The apparatus of claim ⁵~~15~~ wherein said light source is a UV light.

⁷
~~17.~~ The apparatus of claim ⁵~~15~~ wherein said light source is a xenon lamp, or a mercury lamp, or a laser or a combination thereof.

⁸
~~19.~~ The apparatus of claim ⁵~~15~~ further a lens system comprising:

a diffusion lens between said light source and said micromirror; and

a lens between said micromirror and said substrate.

⁹
~~20.~~ The apparatus of claim ⁵~~15~~ wherein said micromirror is further defined as a micromirror array.

¹⁰
~~21.~~ The apparatus of claim ⁵~~15~~ wherein said light interacts with a novolak resin proximate said substrate to produce a photoresist pattern.

¹⁵
~~26.~~ The apparatus of claim ⁵~~15~~ further comprising a total internal reflection mirror disposed in a position to redirect light from said light source into said micromirror and from said micromirror array toward said substrate.

¹⁶
~~27.~~ The apparatus of claim ⁵~~15~~ wherein said substrate is mounted on a movable platform that can be controlled via a computer to allow for multiple repetitive exposures of said substrate to light reflected by said micromirror.

CONCLUSION

Applicant has amended Claim 1 to include the limitation of Claim 7. Claims 7, 8, 13 and 14 were objected to as depending from a rejected independent claim. By this Amendment to Claim 1, Applicant believes all the pending claims, as set forth above, are in condition for allowance.